

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

AFFYMETRIX, INC., a Delaware
corporation,

Plaintiff/Counter-Defendant,

v.

ILLUMINA, INC., a Delaware corporation,

Defendant/Counter-Plaintiff.

Civil Action No. 04-901 (JJF)

REDACTED – PUBLIC VERSION

**AFFYMETRIX, INC.'S REPLY BRIEF IN SUPPORT OF
MOTION FOR SUMMARY ADJUDICATION ON THIRD AND SEVENTH
AFFIRMATIVE DEFENSES AND SECOND COUNTERCLAIM**

MORRIS, NICHOLS, ARSHT & TUNNELL LLP
Jack B. Blumenfeld (#1014)
Maryellen Noreika (#3208)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899-1347
(302) 658-9200
jblumenfeld@mnat.com
mnoreika@mnat.com

Of Counsel:

Attorneys for Plaintiff Affymetrix, Inc.

Michael J. Malecek
Daniel R. Reed
Stephen C. Holmes
AFFYMETRIX, INC.
6550 Vallejo Street, Suite 100
Emeryville, CA 94608
(510) 428-8500

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TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES	ii
ARGUMENT	1
I. ILLUMINA DOES NOT AND CANNOT DISPUTE THE FACTS THAT ARE MATERIAL TO THE INVENTOR-ASSIGNOR STATUS	1
A. Dr. Chee Cannot As A Matter Of Law – And Does Not As A Matter Of Fact – Disclaim His Status As An Inventor Of The ‘716 Patent	1
II. ILLUMINA DOES NOT AND CANNOT DISPUTE THE FACTS THAT ARE MATERIAL TO THE PRIVACY ANALYSIS	10
A. The Undisputed Facts Establish The Close Relationship Between Dr. Chee And Illumina.....	10
B. The Undisputed Facts Demonstrate That Illumina Availed Itself Of Dr. Chee’s Knowledge And Assistance In Developing The Arrays, Assays, And Software That Infringe The ‘716 Patent	12
III. ILLUMINA’S PROFFERED FACTS ARE IMMATERIAL TO THE ASSIGNOR ESTOPPEL ANALYSIS	14
IV. THE EQUITIES ARE ON AFFYMETRIX’S SIDE	15
V. ASSIGNOR ESTOPPEL BARS ILLUMINA’S ASSERTION OF INEQUITABLE CONDUCT	19
CONCLUSION.....	20

TABLE OF AUTHORITIES

	<u>Page(s)</u>
CASES	
<i>Carroll Touch, Inc. v. Electron Mech. Sys., Inc.</i> , 15 F.3d 1573 (Fed. Cir. 1993)	3-4, 16
<i>Diamond Scientific Co. v. Ambico, Inc.</i> , 848 F.2d 1220 (Fed. Cir. 1988)	<i>Passim</i>
<i>Ethicon, Inc. v. United States Surgical Corp.</i> , 135 F.3d 1456 (Fed. Cir. 1998)	4, 6-7, 10
<i>Intel Corp. v. United States Int'l Trade Comm'n</i> , 946 F.2d 821 (Fed. Cir. 1991)	11, 14
<i>Israel Bio-Engineering Project v. Amgen, Inc.</i> , 475 F.3d 1256 (Fed. Cir. 2007)	5, 8
<i>Mentor Graphics Corp. v. Quickturn Design Systems, Inc.</i> , 150 F.3d 1374 (Fed. Cir. 1998)	4-5, 15
<i>Pannu v. Iolab Corp.</i> , 155 F.3d 1344 (Fed. Cir. 1998)	8
<i>Shamrock Techs., Inc. v. Medical Sterilization, Inc.</i> , 903 F.2d 789 (Fed. Cir. 1990)	10-11, 19-20
<i>Stern v. Trustees of Columbia Univ.</i> , 434 F.3d 1375 (Fed. Cir. 2006)	7, 10
<i>Synopsis, Inc. v. Magma Design Automation, Inc.</i> , No. C-04-3923 MMC, 2006 WL 322353 (N.D. Cal. Jan. 31, 2007)	6
<i>Synopsys, Inc. v. Magma Design Automation, Inc.</i> , 2005 WL 1562779 (N.D. Cal. July 1, 2005)	14-15
<i>Trovan, Ltd. v. Sokyumat SA, Irori</i> , 299 F.3d 1292 (Fed. Cir. 2002)	9
STATUTES	
35 U.S.C. § 116	6

Illumina's Answering Brief does not dispute the core facts that compel application of assignor estoppel. Illumina does not and cannot contest that Dr. Chee signed an inventor's oath and an assignment of his rights in the invention claimed in the '716 patent. The undisputed facts demonstrate privity between Dr. Chee and Illumina, including the undisputed facts that Dr. Chee founded Illumina, became the second largest individual shareholder, was a key contributor to the development of Illumina's infringing technology, and hired, supervised, and collaborated with the groups that developed the software and assays that were found by a jury to infringe the '716 patent. Under well-settled law, these facts alone establish that Illumina and Dr. Chee are in privity for purposes of the assignor estoppel analysis.

Unable to contest these material facts, Illumina resorts to irrelevant facts and unfounded legal arguments. Neither of these tactics creates a genuine issue of material fact regarding application of assignor estoppel. Therefore, Affymetrix is entitled to summary adjudication on Count II of Illumina's Counterclaims insofar as it seeks a declaration of invalidity and unenforceability of the '716 patent and on Illumina's Third Affirmative Defense (Invalidity) and Seventh Affirmative Defense (Inequitable Conduct) as they apply to the '716 patent.

ARGUMENT

I. ILLUMINA DOES NOT AND CANNOT DISPUTE THE FACTS THAT ARE MATERIAL TO THE INVENTOR-ASSIGNOR STATUS

A. Dr. Chee Cannot As A Matter Of Law – And Does Not As A Matter Of Fact – Disclaim His Status As An Inventor Of The '716 Patent

Assignor estoppel prevents a party who has assigned rights to a patent from contending that the assigned patent is invalid. *Diamond Scientific Co. v. Ambico, Inc.*, 848 F.2d 1220, 1224 (Fed. Cir. 1988). "The estoppel also operates to bar other parties in privity with the assignor, such as a corporation founded by the assignor." *Id.* Unable to contest the facts establishing privity, Illumina resorts to arguing that Dr. Chee was not a properly-named inventor of the '716

patent and that the doctrine of assignor estoppel does not apply to him (or Illumina). This argument fails for two reasons. First, assignor estoppel operates to preclude Dr. Chee and (by extension) Illumina from contesting Dr. Chee's status as an inventor of the '716 patent. Second, beyond being estopped as a matter of law, Dr. Chee in fact makes no attempt to disclaim that he was properly named as an inventor of the '716 patent. Nor does the evidence in this case create any genuine issue of material fact about whether Dr. Chee is an inventor of the '716 patent.

1. Assignor Estoppel Precludes Dr. Chee and Illumina From
Challenging Dr. Chee's Status As An Inventor Of The '716 Patent

The facts compelling application of assignor estoppel as against Dr. Chee are all undisputed. He is a named inventor of the '716 patent. During the course of prosecution of that patent, he signed an inventor's oath declaring himself to be "an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention" claimed in the application. (Exh. 5.) It is also undisputed that Dr. Chee assigned the patent application to Affymax, his then employer, "[f]or good and valuable consideration." (Exh. 3 at AVI_118799.)¹ These facts establish that he is estopped from challenging the validity of the patents. *See Diamond Scientific*, 848 F.2d at 1226 ("When the inventor-assignor has signed the Oath, Power of Attorney and Petition, which attests to his belief in the validity of the patents, and has assigned the patent rights to another for valuable consideration, he should be estopped from defending patent infringement claims by proving that what he assigned was worthless.")

Even if Dr. Chee now wanted to assert that he was not really an inventor of the '716 patent – which he plainly has no intention of doing, as shown by his declaration that Illumina submitted with its answering brief – he would be precluded by the doctrine of assignor estoppel. As set forth in Affymetrix's earlier papers, the argument that Dr. Chee is not a proper inventor is,

¹ It also is undisputed that Affymax later assigned the '716 patent to Affymetrix. (Exh. 4.)

itself, an attack on the validity of the patent which is precluded by the assignor estoppel doctrine. Illumina asserts that this is “circular” reasoning, and argues that the “threshold inquiry” for application of assignor estoppel is “whether the person whose actions are being estopped was an ‘assignor’ of the patent in question.” (Ill. Br. at 8.) Illumina, however, misses the point of the doctrine of assignor estoppel. The very purpose of the doctrine is to “prevent[] one who has assigned the rights to a patent (or patent application) from later contending that what was assigned was a nullity.” *Diamond Scientific*, 848 F.2d at 1224.

Here, it is undisputed that Dr. Chee signed an inventor’s oath and executed an assignment of his rights in the patent. The “threshold inquiry” posed by Illumina is complete with those undisputed facts. As the Federal Circuit held in *Diamond Scientific*: “The fact of the assignment and of the oath were contained in the pleadings. These were enough, in our view, to support application of the estoppel.” *Id.* at 1227. Illumina’s argument that Dr. Chee was not really an inventor of the ‘716 patent, and therefore “what was assigned was a nullity,” *id.* at 1224, is precisely the sort of attack that is foreclosed by the doctrine of assignor estoppel.

The Federal Circuit squarely rejected Illumina’s argument in *Carroll Touch, Inc. v. Electron Mech. Sys., Inc.*, 15 F.3d 1573 (Fed. Cir. 1993). In that case, a named co-inventor of a patent executed an assignment of the rights to the patent to his employer, Carroll Touch. He later founded another company – Electron Mechanical Systems (“EMS”). Some years later, Carroll Touch sued EMS for infringement of the assigned patent. *Id.* at 1576, 1579-80. Arguing that assignor estoppel did not apply, EMS introduced evidence that the named co-inventor (its founder) “played only a minimal role in the development of the claimed invention,” was not an inventor of the patent and was mistaken as to what he was assigning under the assignment. *Id.* at 1580. The district court accepted these arguments and declined to apply assignor estoppel.

The Federal Circuit reversed, holding that assignor estoppel applied in view of the fact that the named co-inventor had executed an inventor's oath and an assignment. *Id.* at 1581. The Federal Circuit made clear that the co-inventor's signing of an inventor's oath precluded him from contesting his status as an inventor:

Even if we were to assume that he was testifying truthfully when he stated that he did not know what he was signing when he averred that he was an inventor of the claimed subject matter, *we can hardly permit a party to avoid the effects of an equitable doctrine by claiming, as [the named co-inventor] does here, that he violated an oath. Equity cannot aid the violator of an oath.*

Id. at 1581 (emphasis added).

Likewise, Dr. Chee and Illumina cannot avoid the effects of the doctrine of assignor estoppel by claiming that Dr. Chee was not really an inventor of the '716 patent.² That assignor estoppel applies in this case is even more straightforward than in *Carroll Touch* because Dr. Chee, unlike the named co-inventor in *Carroll Touch*, makes no attempt to disclaim his inventorship of the subject patent or otherwise contest the effectiveness of the assignment.

2. Illumina Does Not And Cannot Raise A Genuine Issue Of Material Fact As To Whether Dr. Chee Was A Properly-Named Inventor Of The '716 Patent

"Due to the intrinsic unfairness in allowing an assignor to challenge the validity of the patent it assigned, the implicit representation of validity contained in an assignment of a patent for value raises the presumption that an estoppel will apply." *Mentor Graphics Corp. v. Quickturn Design Systems, Inc.*, 150 F.3d 1374, 1378 (Fed. Cir. 1998). The presumption can be overcome only in "exceptional circumstances" – "such as an express reservation by the assignor of the right to challenge the validity of the patent or an express waiver by the assignee of the

² Of course, under Federal Circuit law, Dr. Chee is *presumed* to be an inventor. *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998).

right to assert assignor estoppel.” *Id.* Here, it is undisputed that there is no express reservation or express waiver in the assignment from Dr. Chee.

Because the requisite “exceptional circumstances” do not exist in this case, and because assignor estoppel bars Illumina from claiming that Dr. Chee was not really an inventor of the ‘716 patent, Illumina has no legally-cognizable way to avoid application of assignor estoppel. There is no reason for this Court to entertain Illumina’s argument that Dr. Chee was not really an inventor of the ‘716 patent, but even if the Court were to consider Illumina’s argument, it is plain to see that it has no substance and cannot create a genuine issue of material fact.

Illumina’s argument is premised on this Court’s finding that “Dr. Robert Lipshutz conceived of the invention claimed in the ‘716 patent ... sometime in the summer of 1992.” (Ill. Br. at 6). The Court made this finding in the context of determining whether Affymetrix owned the rights to the ‘716 patent.³ The Court concluded that Affymetrix owned the rights to the ‘716 patent by operation of an agreement between Dr. Lipshutz’s then-employer, Wagner, and Affymax, and a subsequent assignment from Affymax to Affymetrix. (D.I. 326 at 9-10.)

From this premise, Illumina leaps to the conclusion that Dr. Chee was not an inventor of the ‘716 patent simply because he did not do any of the work described in the patent until after the summer of 1992. (Ill. Br. at 7.) Illumina’s quantum leap has no basis in law or fact. As an initial matter, “issues of patent ownership are distinct from questions of inventorship.” *Israel Bio-Engineering Project v. Amgen, Inc.*, 475 F.3d 1256, 1263 (Fed. Cir. 2007). This Court’s finding that Affymetrix owns the ‘716 patent as a result of agreements covering Dr. Lipshutz’s

³ Illumina had moved to dismiss count 2 of the complaint (which alleges that Illumina infringes the ‘716 patent), contending that Affymetrix never had legal title to the ‘716 patent because Dr. Lipshutz was employed by Daniel H. Wagner Associates (“Wagner”) in the summer of 1992 when he conceived of the invention claimed in the ‘716 patent. In denying Illumina’s motion to dismiss, the Court concluded that Affymax acquired the rights to the inventions of Dr. Lipshutz as a result of a 1991 consulting agreement between Wagner and Affymax. The Court further found that “Affymax effectively assigned its rights in the invention to Affymetrix.” (D.I. 326 at 10.)

work does not mean, as Illumina suggests, that Dr. Chee was not a co-inventor of the '716 patent. This Court did not consider, or address the fact that Affymetrix also has ownership rights to the '716 patent by virtue of Dr. Chee's co-inventorship.⁴ Simply put, this Court's resolution of the ownership issue has no bearing on Dr. Chee's status as co-inventor.

Illumina's suggestion that Dr. Chee was not a co-inventor on the '716 patent because his inventive work came after Dr. Lipshutz's initial conception of the invention likewise falls wide of the mark. Congress did away with the notion that joint invention is synonymous with simultaneous conception by its amendments to Section 116 over 20 years ago. "Persons may be 'joint' inventors even though '(1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) did not make a contribution to the subject matter of every claim of the patent.'" *Synopsis, Inc. v. Magma Design Automation, Inc.*, No. C-04-3923 MMC, 2006 WL 322353, at *27 (N.D. Cal. Jan. 31, 2007) (*quoting* 35 U.S.C. § 116)). As the Federal Circuit explained, "[t]he purpose of the amendment of § 116 was to remedy the increasing technical problems arising in team research, for which existing law, deemed to require simultaneous conception as well as shared contribution by each named inventor to every claim, was producing pitfalls for patentees, to no public purpose." *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1469 (Fed. Cir. 1998).

The settled law that simultaneous conception is not required disposes of Illumina's centerpiece argument, which features a newly-minted declaration from Dr. Chee (dated November 1, 2007). In his declaration, Dr. Chee simply states: "To my present recollection, I do not believe that I did any work that is described in the '716 patent on behalf of Affymax or Affymetrix until sometime after the summer of 1992." (11/1/07 Decl. of Mark Chee, at ¶ 4.)

⁴ Affymetrix presented this alternative point in its briefing on the ownership issue: "Regardless of the resolution of the present issue, Affymetrix has always owned [the '716 patent] by virtue of Dr. Mark Chee's co-inventorship." (D.I. 268 at 1).

Illumina argues that this “confirms” that Dr. Lipshutz alone conceived of the invention claimed in the ‘716 patent (Ill. Br. at 7), but Dr. Chee’s declaration says nothing of the kind.

What is not in Dr. Chee’s declaration is much more significant. Tellingly, Dr. Chee does not in any way disclaim his status as an inventor of the ‘716 patent or diminish his contribution to the claimed invention. Dr. Chee does not state that he made no contribution to the conception of the invention. Also conspicuously absent is any statement that his work on the claimed invention was not inventive or that he made no significant contributions to the invention. Dr. Chee does not describe his work at all. All that he says is that his work commenced sometime after the summer of 1992. This unremarkable statement does not raise a genuine issue of fact as to Dr. Chee’s status as an inventor of the ‘716 patent. This is especially true given that, as the Federal Circuit has made clear, “[p]atent issuance creates a presumption that the named inventors are the true and only inventors.” *Ethicon*, 135 F.3d at 1460.

Just as Illumina’s reliance on Dr. Chee’s declaration is misplaced, so too is its reliance on *Stern v. Trustees of Columbia Univ.*, 434 F.3d 1375 (Fed. Cir. 2006). In *Stern*, the plaintiff sought to be added as an inventor to a patent and had the burden of overcoming (by clear and convincing evidence) the statutory presumption that the named inventors are the true and only inventors. *Id.* at 1377. Affirming the district court’s grant of summary judgment for defendant, the Federal Circuit held that “the evidence Stern presented was insufficient to corroborate his claim of co-inventorship” because he “simply carried out an experiment previously done by [the named inventor] on different animals – animals that [the named inventor] had already determined would be good models for prostaglandins research.” *Id.* at 1378.

Stern does not assist Illumina for two reasons. First, Illumina offers no evidence that Dr. Chee’s work on the ‘716 patent was limited to simply carrying out an experiment previously

done by Dr. Lipshutz. In fact, Dr. Lipshutz (upon whose testimony Illumina relies) testified precisely the opposite, stating that Dr. Chee REDACTED

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(Exh. 23, Lipshutz Deposition, at 182:9-11

(emphasis added).) Second, in this case, Illumina has the burden to overcome the statutory presumption, because it seeks (*sub silencio*) to remove a named inventor, Dr. Chee, from an issued patent. Simply put, the snippets of out-of-context deposition testimony that Illumina relies on are insufficient to create a genuine issue of fact as to Dr. Chee's inventor status, much less overcome the presumption that he was properly named as an inventor.

On page 8 of its brief, Illumina pieces together snippets of Dr. Lipshutz's deposition testimony and argues that Dr. Lipshutz testified that Dr. Chee simply "reduced to practice" the invention conceived by Dr. Lipshutz. (Ill. Br. at 8.)⁵ But review of the complete text of Dr. Lipshutz's testimony confirms that both he and Dr. Chee contributed to the conception and reduction to practice of the claimed invention:

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⁵ Beyond being belied by the record, Illumina's characterization of Dr. Chee's contribution does not assist it, as the Federal Circuit just this year reiterated its earlier holding that "[a]ll that is required of a joint inventor is that he or she (1) contribute in some significant manner to the conception *or reduction in practice* of the invention, (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art." *Israel Bio-Engineering*, 475 F.3d at 1263-64 (emphasis added) (quoting *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998)).

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(Exh. 20, Lipshutz Deposition at 22:12-23; 194:6-21 (emphases added).)

Similarly, Dr. Chee did not suggest that he was improperly named as an inventor. Rather, he simply testified

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(Counter-Statement Exh. C, Chee Deposition at 88:7-20 (emphases added).) Dr. Chee also testified that

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“Because co-inventors need not make a contribution to the subject matter of every claim of the patent, inventorship is determined on a claim-by-claim basis.” *Trovan, Ltd. v. Sokyumat SA, Irori*, 299 F.3d 1292, 1302 (Fed. Cir. 2002). Illumina’s cursory assertions that Dr. Chee was not properly named an inventor of the ‘716 patent comes nowhere close to presenting evidence sufficient to do the “inventorship analysis” articulated in *Trovan*. *See id.* Indeed, Illumina

effectively concedes this point, acknowledging that its arguments do not reach all the claims of the '716 patent and hence "do not necessarily jeopardize [Dr. Chee's] status as an inventor of the patent." (Illum. Brief at 9, n.3.) No evidence is offered that Dr. Chee is an inventor on some but not all claims. Nor would it matter as "contribution to one claim is sufficient to be a co-inventor." *Stern*, 434 F.3d at 1378; *see also Ethicon*, 135 F.3d at 1460.

Far from creating a genuine issue of material fact, the testimony of Drs. Lipshutz and Chee confirm the legal presumption that Dr. Chee is a properly-named inventor on the '716 patent. Accordingly, Dr. Chee, as inventor and assignor of the invention claimed in the '716 patent, is estopped from challenging the validity of the patent.

II. ILLUMINA DOES NOT AND CANNOT DISPUTE THE FACTS THAT ARE MATERIAL TO THE PRIVITY ANALYSIS

Because Dr. Chee is estopped, so too is Illumina because "[t]he estoppel also operates to bar other parties in privity with the assignor, such as a corporation founded by the assignor." *Diamond Scientific*, 848 F.2d at 1224.

A. The Undisputed Facts Establish The Close Relationship Between Dr. Chee And Illumina

As discussed in Affymetrix's earlier briefs, the Federal Circuit examines the closeness of the relationship between an assignor/inventor and his new company in light of the act of infringement in making the determination of whether the two are in privity. *Shamrock Techs., Inc. v. Medical Sterilization, Inc.*, 903 F.2d 789, 793 (Fed. Cir. 1990). Affymetrix set forth a litany of undisputed facts that establish the close relationship between Dr. Chee and Illumina:

- Dr. Chee founded Illumina. He was the only founder with a background in molecular biology and DNA microarrays.
- Dr. Chee was the second largest individual shareholder in Illumina.
- As described by Illumina's then-CEO, Dr. Chee was "absolutely critical to the company's future progress" and was responsible for "scientific leadership of the company."

- All of Illumina's commercial products came out of the areas of research that he was responsible for.
- Dr. Chee is a named inventor on 14 of Illumina's 20 issued United States patents.
- Dr. Chee invented the method by which Illumina decodes its DNA microarrays, a process necessary for the infringing product to be useable.
- Dr. Chee headed many of Illumina's important grants, including those that led to the development of commercial genotyping products found to infringe the '716 patent.
- Dr. Chee established, hired, supervised, set goals for, and collaborated with the Molecular Biology and Informatics Groups which developed the technology underlying the genotyping assays and software accused of infringing the '716 patent.

These facts – none of which Illumina even attempts to dispute – are more than sufficient to establish privity between Dr. Chee and Illumina. This is made plain by *Shamrock Techs.* There, the Federal Circuit found privity where the inventor joined a pre-existing company (Dr. Chee founded Illumina), owned 50,000 shares of stock (Dr. Chee owned over 900,000 shares of Illumina stock), served as Vice-President in charge of Operations (Dr. Chee served as Vice President of Genomics and was responsible for developing the genomics applications of Illumina's technology), and oversaw the company's infringing operation (Dr. Chee established and supervised the group responsible for developing the infringing technology). *Shamrock Techs.*, 903 F.2d at 794; *see also Intel Corp. v. United States Int'l Trade Comm'n*, 946 F.2d 821, 839 (Fed. Cir. 1991) (finding privity between inventor and company with whom he participated in a joint development program).

Illumina ignores the various undisputed facts and does not make even a token effort to distinguish Affymetrix's factual showing from the factual showing found sufficient in *Shamrock Techs.* Instead, Illumina pretends that Affymetrix relies on only three the three points that Illumina lists in its answering brief – namely, that Dr. Chee was “co-founder” of Illumina, that he was “Vice President of Genomics,” and that his “fingerprints” are on Illumina's infringing

technology. (Ill. Br. at 9.) Illumina's failure to grapple with the litany of undisputed facts confirms that it has no meaningful response to them.

B. The Undisputed Facts Demonstrate That Illumina Availed Itself Of Dr. Chee's Knowledge And Assistance In Developing The Arrays, Assays, And Software That Infringe The '716 Patent

Illumina's head-in-the-sand approach is exemplified by its assertion that Affymetrix presented "essentially no evidence" that "Illumina availed itself of Dr. Chee's 'knowledge and assistance to conduct the infringement,' as is required by law." (Ill. Br. at 10.) This assertion cannot withstand even mild scrutiny. In its earlier briefs, Affymetrix highlighted the undisputed facts demonstrating that Illumina availed itself of Dr. Chee's knowledge and assistance to conduct the infringement. As alleged and proved by Affymetrix, the GenCall software, in conjunction with Illumina's two genotyping assays (GoldenGate and Infinium) and DNA microarrays, infringes the '716 patent. Dr. Chee contributed to the development of each of these infringing technologies.

First, Illumina does not dispute that Dr. Chee hired and supervised the two former Affymetrix scientists (Drs. Gunderson and Fan) who developed the infringing GoldenGate and Infinium assays. Nor does Illumina dispute that Dr. Chee was involved in the development of these assays through his supervision of and collaboration with Drs. Gunderson and Fan. (Affy. Opening Br. at 15-16.) Similarly, Illumina does not dispute that Dr. Chee was the Principal Investigator on the Illumina grant that led to the development of the infringing GoldenGate genotyping assay and the BeadLab system. (*Id.* at 7.) Plain and simple, these undisputed facts demonstrate that Illumina availed itself of Dr. Chee's knowledge and assistance in developing the genotyping assays that, together with the GenCall software, infringe the '716 patent.

Second, Illumina agrees that Dr. Chee invented the decoding method used on every Illumina DNA microarray. (Counter-Statement at ¶ 30.) Without this decoding process, there

would be no meaningful probe intensities for the GenCall software to compare because the sequence of the probe giving the signal would be unknown. While Illumina states that several employees were involved in developing the decoding process on its commercial products, it cannot dispute (and indeed agrees) that Dr. Chee invented the underlying decoding principle. Again, there is and can be no dispute that Illumina availed itself of Dr. Chee's knowledge and assistance in developing its infringing DNA microarray technology.

Third, Illumina does not dispute a connection between Dr. Chee and the GenCall software.

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Illumina has not disputed any of these facts. Together, they confirm that Illumina availed itself of Dr. Chee's knowledge and assistance in developing the GenCall software, even if Dr. Chee had no hands-on role in the final commercial product.

In sum, Illumina availed itself of Dr. Chee's knowledge and assistance in developing the array, assay, and software technology that infringes the '716 patent. Illumina does not make even a token effort to challenge these facts. As Federal Circuit has made clear and Illumina

acknowledges: “What is significant is whether the ultimate infringer availed itself of the inventor’s ‘knowledge and assistance’ to conduct infringement.” *Intel Corp.*, 946 F.2d at 839. Accordingly, Illumina should be found to be in privity with Dr. Chee and summary adjudication should be granted.

III. ILLUMINA’S PROFFERED FACTS ARE IMMATERIAL TO THE ASSIGNOR ESTOPPEL ANALYSIS

Against the wave of undisputed facts that establish privity, Illumina offers facts that are neither in dispute nor material to the assignor estoppel analysis. None of these facts creates a genuine issue for trial.

Illumina states that “Dr. Chee is only one of several individuals who were involved with Illumina’s formation” and that “Illumina is, and always has been, substantially more than one individual.” (Ill. Br. at 10.) Affymetrix has never contended otherwise. There is no requirement for a finding of privity that the inventor/assignor be considered the “corporate disguise” of his new company. *See, e.g., Intel Corp.*, 946 F.2d at 838, 839 (rejecting “identity of interests” test as “unduly restrictive for an equitable doctrine” and finding privity between an inventor and a company with which he was involved in a joint development program and over which he had no control); *Synopsys, Inc. v. Magma Design Automation, Inc.*, 2005 WL 1562779, at *7 n.6 (N.D. Cal. July 1, 2005) (rejecting argument that the inventor must exercise control over estopped entity and noting that such a ruling would “conflict[] with the Federal Circuit’s holding in *Intel* that the key factor is whether the infringing company uses the assignor’s knowledge and assistance to conduct infringement”).

Illumina states that “Dr. Chee was involved in Illumina’s high-level research and development process until 2002, but had limited to no involvement in the commercial development of Illumina’s products.” (Ill. Br. at 11.) Affymetrix has never contended that Dr.

Chee personally designed the commercial products or that he served on the project teams tasked with final commercial development. Rather, as discussed above, the record is clear that Illumina used Dr. Chee's knowledge and assistance in developing the technology that underlies those products. In fact, in sworn statements to the federal government, Illumina repeatedly affirmed that the grant funds provided to Dr. Chee and used under his supervision at Illumina contributed to the commercialization of Illumina's technology. (Affy. Opening Br. at 7, 14.) In addition, there is no requirement for a finding of privity that the assignor/inventor be personally involved in the design of the commercial product. As recently stated in the Northern District of California:

The Federal Circuit, however, has not required that the assignor be personally involved in designing the allegedly infringing aspects of a product before finding the doctrine of assignor estoppel applicable. In Mentor [Graphics Corp. v. Quickturn Design Sys., Inc., 150 F.3d 1374 (Fed. Cir. 1998)], for example, the Federal Circuit applied the doctrine of assignor estoppel where the assignor, Mentor, had no involvement in the creation of the allegedly infringing product, but only in the marketing of the product. . . . Mentor demonstrates that assignor estoppel may apply even where the assignor had no involvement at all in creating the infringing technology.

Synopsys, 2005 WL 1562779, at * 6-7 (emphasis added). Therefore, Illumina is in privity with Dr. Chee even if he did not write the GenCall software or otherwise personally develop the commercial products.

IV. THE EQUITIES ARE ON AFFYMETRIX'S SIDE

In weighing the balance of equities, the Federal Circuit has made clear that "the primary consideration in now applying the doctrine is the measure of unfairness and injustice that would be suffered by the assignee if the assignor were allowed to raise defenses of patent invalidity." *Diamond*, 848 F.2d at 1225. As *Diamond* and other cases make clear, the equities weigh heavily in favor of the assignee (here, Affymetrix) when, as here, the inventor/assignor and those in privity with him (here, Illumina) seek to defend "patent infringement claims by proving that

what was assigned was worthless.” *Id.* at 1224-26; *see also Carroll Touch*, 15 F.3d at 1581 (concluding, in light of execution of inventor’s oath and assignment, that “the equities weigh in favor of applying the doctrine of assignor estoppel to EMS and thus it may not defend itself from charges of infringement by derogating the validity of a patent subject to the assignment”).

Unable to mount any argument bearing on the equities found germane in *Diamond Scientific* and subsequent cases, Illumina argues that the Court “must consider *all* of the equities” and should address assignor estoppel only in the context of Illumina’s equitable defenses in the phase three trial. (Ill. Br. at 12.) Unsurprisingly, Illumina offers no authority to support its proposition. The supposed inequities that Illumina identifies not only have no bearing on the assignor estoppel determination but also have no basis in fact.

Illumina first argues that Affymetrix has taken “inconsistent positions with respect to who in fact conceived of the invention claimed in the ‘716 patent” and should therefore be “judicially estopped” from invoking assignor estoppel. (Ill. Br. at 13.) Illumina’s assertion that Affymetrix took the position that Dr. Lipshutz *alone* conceived the claimed invention when it opposed Illumina’s motion to dismiss count 2 for lack of standing and subject matter jurisdiction is simply wrong. In briefing on the ownership issue, Affymetrix consistently identified Dr. Chee as a co-inventor. (*See, e.g.*, D.I. 246, Affy. Opp. to Illumina’s Motion to Dismiss Count 2, at 2.) In fact, in its answer to Illumina’s supplemental brief on the ownership issue, Affymetrix challenged Illumina’s position that Dr. Lipshutz’s former employer, Wagner, owned the rights to the ‘716 patent, and stated further:

Moreover, Illumina continues to frame this issue on the false premise that Wagner is the “sole owner” of the ‘716 patent. Regardless of the resolution of the present issue, Affymetrix has always owned U.S. Patent 5,795,716 (the “‘716 patent”) *by virtue of Dr. Mark Chee’s co-inventorship*. Dr. Chee was an employee of Affymetrix at the time he contributed to *the conception and reduction to practice* of this invention.

(D.I. 268, Affy. Answer to Illumina's Supplemental Brief, at 1.) Affymetrix devoted two pages of that answer (pages 15 and 16) to make clear that, "[w]hile this supplemental briefing relates to the ownership of the rights relating to Lipshutz's inventorship, there is no dispute regarding Dr. Chee's inventorship and his assignment of his rights to Affymetrix." (*Id.* at 15.) Because this Court found that Affymetrix owned the '716 patent by operation of the agreements covering Dr. Lipshutz's work, there was no occasion for the Court to reach Affymetrix's alternative argument that it owned the rights by virtue of Dr. Chee's co-inventorship. *See* Part I.2, *supra*. Affymetrix never suggested that Dr. Chee was not also an inventor of the patent. In short, Illumina's "judicial estoppel" argument is based on a completely false premise.

Illumina next argues that Affymetrix "obtained a claim construction that encompasses the prior art" and that "Illumina was not afforded the opportunity to use the prior art to limit the claimed scope in claim construction." (Ill. Br. at 14.) Even if this were relevant to the assignor estoppel analysis (and Illumina presents no authority that it is), it is simply inaccurate. During claim construction, Illumina repeatedly used prior art in support of its attempt to limit the claim scope. For example, Illumina relied on statements made by Affymetrix about alleged "tag" prior art in arguing for its construction of "probe."⁶ (D.I. 240, Ill. Opening Markman Br., at 32.) Similarly, Illumina argued that Affymetrix was seeking a construction of the term "probe intensity" that was inconsistent with positions Affymetrix took regarding the prior art during prosecution. (D.I. 249, Ill. Reply Markman Br. at 32.) The Court, in fact, adopted Illumina's proposed construction, in part based on statements made during prosecution about the prior art. (D.I. 324, Court's Markman Mem. Opin., at 21-22.) Simply put, Illumina had full opportunity to

⁶ Illumina also used the prior art to support its proposed construction of "indicating an extent of hybridization." (D.I. 249, Ill. Reply Markman Br., at 36.)

present – and did present – evidence regarding prior art for the purpose of construing and narrowing the claims of the ‘716 patent.

Illumina’s contention that, because of the Court’s trifurcation of the trial, Illumina could not limit Affymetrix’s infringement arguments is likewise inaccurate. This Court construed the claims in light of the prior art before the infringement phase of the trial, and Illumina had a full opportunity to argue that its products fall outside the scope of the claims. Moreover, Illumina examined Affymetrix’s expert witness on the ‘716 patent about prior art references, (Exh. 24, Trial Transcript, at 874-79), as well as its own expert witness. (*Id.* at 1244-48.)

Finally, Illumina argues that it would be “unfair” to apply assignor estoppel because Dr. Chee is no longer employed by Illumina and “is not receiving any benefit from the alleged infringement.” (Ill. Br. at 14.) But, of course, Dr. Chee has benefited from Illumina’s infringing acts, having cashed in hundreds of thousands of shares of Illumina stock to amass a personal fortune.⁷ In any case, Illumina cites to no authority for the proposition that assignor estoppel applies only when the assignor/inventor himself is presently receiving a benefit from the infringement. This is not surprising, because the doctrine applies not only to the assignor/inventor, but also to those in privity with him. There can be no dispute that Illumina has benefited, and continues to benefit, from the sale of its infringing products. Nor has Illumina cited any authority for the proposition that a company founded by the assignor/inventor can escape the application of assignor estoppel simply by ending the employment of the assignor prior to trial on the infringement issue.

7

Betraying that it is unable to argue the equities between the parties, Illumina invokes the “public policy” favoring challenges to the validity of patents as a justification for disregarding the assignor estoppel doctrine. (Ill. Br. at 14-15, n. 6.) Illumina’s argument is nothing more than a condemnation of the Federal Circuit’s decision upholding assignor estoppel in *Diamond Scientific* as being contrary to public policy. What the Federal Circuit said in *Diamond Scientific* is that “despite the public policy encouraging people to challenge potentially invalid patents, there are still circumstances in which the equities of the contractual relationships between the parties would deprive one party (*as well as others in privity with it*) of the right to bring that challenge.” *Diamond Scientific*, 898 F.2d at 1225 (emphasis added). As demonstrated above, the equities of applying assignor estoppel to Illumina in this case are clear and unmistakable.

V. ASSIGNOR ESTOPPEL BARS ILLUMINA’S ASSERTION OF INEQUITABLE CONDUCT

The Federal Circuit has made clear that assignor estoppel operates to preclude inequitable conduct claims, particularly when, as here, the challenged conduct occurred before the assignor/inventor signed his declaration. *See, e.g., Shamrock Techs.*, 903 F.2d at 795-96 (“If we were to hold otherwise, *Diamond Scientific* could be avoided by merely couching invalidity defenses in terms of inequitable conduct, precisely as appellants attempt here to do.”). Despite this precedent, Illumina nonetheless argues that, even if the Court finds that assignor estoppel precludes Illumina from challenging the validity of the ‘716 patent, the Court should not apply assignor estoppel to preclude Illumina from asserting inequitable conduct. (Ill. Br. at 15-17.)

The sum and substance of Illumina’s assertion of inequitable conduct is that

REDACTED

(*Id.* at 16-17). Illumina argues that assignor estoppel should not bar its inequitable conduct claim because its claim is based REDACTED

REDACTED

(Id. at 16). But that is not

the test. As *Shamrock Techs.* makes clear, assignor estoppel applies to bar inequitable conduct claims that arise from events occurring before the inventor/assigns executes his declaration and assignment. *Shamrock Techs.*, 903 F.2d at 795-96. Here, the asserted inequitable conduct occurred REDACTED In sum,

Illumina cannot do an end-run around assignor estoppel by “couching invalidity defenses in terms of inequitable conduct.” *Shamrock Techs.*, 903 F.2d at 795.

CONCLUSION

For the foregoing reasons, and those set forth in Affymetrix’s earlier briefs, Affymetrix requests that the Court grant summary judgment on Count II of Illumina’s Counterclaims insofar as it seeks to declare the ‘716 patent invalid or unenforceable. Affymetrix also requests entry of summary judgment on Illumina’s Third Affirmative Defense (Invalidity) and Seventh Affirmative Defense (Inequitable Conduct) as they apply to the ‘716 patent.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Maryellen Noreika

Jack B. Blumenfeld (#1014)
 Maryellen Noreika (#3208)
 1201 N. Market Street
 Wilmington, DE 19899-1347
 (302) 658-9200
 jblumenfeld@mnat.com
 mnoreika@mnat.com

Attorneys for Plaintiff Affymetrix, Inc.

Of Counsel:

Michael J. Malecek
 Daniel R. Reed
 Stephen C. Holmes
 AFFYMETRIX, INC.
 6550 Vallejo Street, Suite 100
 Emeryville, CA 94608
 (510) 428-8500

November 9, 2007

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I hereby certify that on November 9, 2007, I electronically filed the foregoing document using CM/ECF which will send notification of such filing(s) to the following:

Richard K. Herrmann, Esquire
MORRIS JAMES LLP

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**VIA ELECTRONIC MAIL
and HAND DELIVERY**

Richard K. Herrmann, Esquire
MORRIS JAMES LLP
500 Delaware Avenue
Suite 1500
Wilmington, DE 19801

VIA ELECTRONIC MAIL

Marcus E. Sernel, Esquire
KIRKLAND & ELLIS LLP
200 East Randolph Drive
Chicago, IL 60601

/s/ Maryellen Noreika (#3208)

Maryellen Noreika (#3208)
mnoreika@mnat.com

CERTIFICATE OF SERVICE

I hereby certify that on November 16, 2007, I electronically filed the foregoing document using CM/ECF which will send notification of such filing(s) to the following:

Richard K. Herrmann, Esquire
MORRIS JAMES LLP

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**VIA ELECTRONIC MAIL
and HAND DELIVERY**

Richard K. Herrmann, Esquire
MORRIS JAMES LLP
500 Delaware Avenue
Suite 1500
Wilmington, DE 19801

VIA ELECTRONIC MAIL

Marcus E. Sernel, Esquire
KIRKLAND & ELLIS LLP
200 East Randolph Drive
Chicago, IL 60601

/s/ Maryellen Noreika (#3208)

Maryellen Noreika (#3208)
mnoreika@mnat.com